

ABSTRACT OF THE DISCLOSURE

Disclosed herein is an apparatus for controlling a decision threshold voltage to an optical receiver, which is capable of automatically controlling the decision threshold voltage to the optical receiver appropriately to signal level decision on the basis of a low-frequency band signal component of an output signal from the optical receiver. The apparatus is adapted to control the level of the decision threshold voltage to the optical receiver, which converts an input optical signal into an electrical signal. To this end, the apparatus comprises a voltage detector for branching off part of the output signal from the optical receiver and detecting a corresponding voltage, a differential comparator for comparing the voltage detected by the voltage detector with a reference voltage inputted thereto and outputting the resulting differential voltage, a low pass filter for filtering the differential voltage from the differential comparator at a predetermined low frequency band and supplying the resulting voltage as the threshold voltage to the optical receiver, and a voltage controller for controlling the reference voltage to the differential comparator on the basis of a differential voltage between the threshold voltage from the low pass filter and a predetermined voltage corresponding to a predetermined minimum bit error rate.